This rejection is respectfully traversed.

Applicants cannot understand why this rejection was made, since the polymeric carrier according to claim 39 and the claims dependent thereon has monomeric units selected from nucleotides, nucleotide analogues, and peptide nucleic acids. Bredehorst, on the other hand, is directed to a peptide. Since the monomeric units of claim 39 are not disclosed or suggested in Bredehorst, applicants submit that this reference is not a proper anticipatory reference. As the Examiner knows, in order to be a valid anticipatory reference, the identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ 2nd 1913 (Fed. Cir. 1989). Since Bredehorst is not a valid anticipatory reference, applicants respectfully submit that this rejection should be withdrawn.

Claims 60 and 62 are rejected under 35 U.S.C. § 102(b) as being anticipated by Smith et al.

This rejection is respectfully traversed.

As the Examiner can see, claim 60 has been amended to include the limitations of claim 63. Smith et al. do not indicate in the least that a selective introduction of marker groups and haptens into a carrier can be conducted. This is especially true regarding the coupling of the hapten and marker groups to primary amino groups or thiol groups. Since Smith et al. do not indicate the features of the present invention, it cannot be stated that Smith et al. is a valid anticipatory reference. Applicants respectfully request that this rejection be withdrawn.

Claims 40 and 53 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bredehorst et al. in view of Gadow et al.

This rejection is respectfully traversed.

Applicants respectfully submit that this rejection is unfounded because a combination of these two references does not result in a *prima facie* case of obviousness. Bredehorst discloses part of the insulin A chain as a carrier molecule containing both hapten groups and fluorescent marker groups. Although the number of functional groups of the insulin fragment is known, the hapten and marker groups are introduced statistically. This is clear because the single monomeric amino acid components are not derivatized during the chemical synthesis; rather, the entire insulin molecule is derivatized in one single batch. In this way, it is impossible to precisely insert marker groups at predetermined positions on the carrier.

Gadlow merely uses polymeric carriers (e.g., glycoproteins) and statistically labels them by means of marker groups and haptens. The combination of Bredehorst and Gadlow lacks a decisive feature of the claims, namely the defined spacial coupling of haptens and marker groups to the carrier. The subject matter of the present invention is therefore patentable over the cited references. Moreover, one of skill in the art cannot gather from the combination of Gadlow and Bredehorst any indication of the method according to which the conjugates of the present invention are produced.

Applicants respectfully request that this rejection be withdrawn.

The following rejections were repeated verbatim from the previous Office Action:

(1) The rejection of claims 57-59 (which correspond to previous claims 18-20) under 35 U.S.C. § 103(a) as being unpatentable over Bredehorst et al. in view of Berzofsky et al.;

(2) The rejection of claims 66 and 68-70 (which correspond to original claims 27-30) under 35 U.S.C. § 103(a) as being unpatentable over Bredehorst et al. in view of Smith et al.; and

(3) The rejection of claim 61 (which corresponds to original claim 22) under 35 U.S.C. § 103(a) as being unpatentable over Smith et al. in view of Buchardt et al.

These rejections are respectfully traversed. Applicants submit that the secondary references cited would not overcome the failure of the primary references to show the present invention, as discussed in detail above. Therefore, each of these rejections is not a valid *prima facie* rejection under 35 U.S.C. § 103, and should be withdrawn.

Claims 60-65 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bredehorst et al. in view of Greene et al.

This rejection is respectfully traversed regarding claims 60-61 and 63-65, as amended.

Bredehorst has been described above. Greene is an article in a Textbook relating to protective groups in organic synthesis. The reference does not comment on how haptens and marker groups can simultaneously be coupled to different, predetermined

positions on a polymeric carrier. What is decisive in the present invention is the transition from the random distribution of groups in a natural product (as shown in Bredehorst) to a selectively synthesized synthetic product. This transition requires a non-obvious inventive step. This step is not shown in either of the cited references, therefore it cannot be obvious from a combination of the cited references to conduct the inventive step. Applicants respectfully request that this rejection be withdrawn.

Claims 39, 41-48, 55 and 60-70 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Buchardt.

This rejection is respectfully traversed. Applicants respectfully submit that this rejection is unfounded. There is not the slightest hint in Buchardt et al. at a selective coupling of hapten and marker groups at predetermined positions on a nucleic acid carrier. It is merely disclosed that it would be possible to incorporate different groups. No hint at simultaneous insertion of different types of groups, particularly hapten and marker groups is made in the reference. Therefore, applicants respectfully submit that this rejection should be withdrawn.

In view of the amendments and remarks above, applicants submit that this application is in condition for allowance and request reconsideration and favorable action thereon.

If for any reason, the Examiner feels the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not timely filed, applicants hereby petition for an appropriate extension of time. The fee for this extension may be charged to our Deposit Account No. 14-1060, along with any other fees which may be required with respect to this application.

Respectfully submitted,

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